



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:

Barry et al.

Serial No. 10/622,201

Filed: July 18, 2003

For: GLYPHOSATE-TOLERANT 5-

ENOLPYRUVYLSHIKIMATE-3-

PHOSPHATE SYNTHASES

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Atty. Dkt. No.: 11899.0175.REUS07

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, Applicants request that this Supplemental Information Disclosure Statement be entered and that the references listed on the attached PTO-1449 form be considered by the Examiner and made of record. A copy of each document listed on the PTO-1449 is enclosed.

In accordance with 37 C.F.R. § 1.97(g), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

- U.S. Patent No. 5,633,435, the patent upon which this reissue application is based, has been the subject of litigation in the following cases:
- Monsanto Co. v. Plummer, 98-2536 EEO, U.S. District Court for the District of Kansas, filed November 19, 1999.

- Monsanto Co. v. Dawson, 4:98CV02004 TCM, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed December 2, 1998.
- 3. <u>Monsanto Co. v. Mayfield</u>, 4:99CV00538 CAS, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed April 2, 1999.
- 4. <u>Monsanto Co. v. Garbers</u>, 4:99CV00632DJS, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed April 1, 1999.
- 5. <u>Monsanto Co. v. Collier</u>, 4:99CV00995LOD, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed June 22, 1999.
- 6. <u>Monsanto Co. v. Bowling</u>, 3:99CV-424-S, U.S. District Court for the Western District of Kentucky, filed July 1, 1999.
- 7. <u>Monsanto Co. v. Stratemeyer</u>, 4:99CV01218CEJ, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed August 2, 1999, transferred in September 1999 to U.S. District Court, Southern District of Illinois, 99-4197-JPG.
- 8. <u>Monsanto Co. v. Moore</u>, 1:99-1195, U.S. District Court for the Western District of Tennessee, Eastern Division, filed August 18, 1999.
- 9. <u>Monsanto Co. v. Lea</u>, 4:99CV01994ERW, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed December 17, 1999.
- 10. <u>Monsanto Co. v. Byrd</u>, 7-99-CV-154-F(1), U.S. District Court for the Eastern District of North Carolina, Southern Division, filed August 31, 1999.
- 11. <u>Monsanto Co. v. Owens</u>, 4:99CV01424TIA, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed September 9, 1999.
- 12. <u>Monsanto Co. v. Godfredson</u>, 4:99CV01691CDP, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed October 29, 1999.

- 13. <u>Monsanto Co. v. Edwards</u>, 3-99-CV-90197, U.S. District Court for the Southern District of Iowa, Davenport Division, filed November 24, 1999.
- Monsanto Co. v. McFarling, 4:00CV00084DDN, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed January 19, 2000.
- 15. <u>Monsanto Co. v. Ralph</u>, 4:00CV00135RWS, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed January 28, 2000.
- 16. <u>Monsanto Co. v. Snowden</u>, 5-00CV0044-C, U.S. District Court for the Northern District of Texas, Lubbock Division, filed February 11, 2000.
- 17. <u>Monsanto Co. v. Oswalt</u>, 4:00CV00278FRB, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed February 18, 2000.
- 18. <u>Monsanto Co. v. Eaton</u>, 4:00CV00435ERW, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed March 13, 2000.
- 19. <u>Monsanto Co. v. Hartkamp</u>, CIV00-164-S, U.S. District Court for the Eastern District of Oklahoma, filed April 3, 2000.
- 20. <u>Pharmacia Co. f/k/a Monsanto Co. v. Trantham</u>, 002656-M1BRE, U.S. District Court for the Western District of Tennessee, Western Division, filed July 25, 2000.
- 21. <u>Monsanto Co. v. Swann</u>, 4:00CV01481CEJ, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed September 14, 2000.
- 22. <u>Monsanto Co. v. Ethridge</u>, 4:00CV01592TCM, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed October 4, 2000.
- 23. <u>Monsanto Co. v. Adams</u>, 3:00CV185-D-A, U.S. District Court for the Northern District of Mississippi, Western Division, filed October 10, 2000.
- 24. <u>Monsanto Co. v. Jones</u>, 3:00CV188-D-A, U.S. District Court for the Northern District of Mississippi, Western Division, filed October 11, 2000.

- 25. <u>Monsanto Co. v. Nelson</u>, 4:00CV01636DDN, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed October 11, 2000.
- 26. <u>Monsanto Co. v. Stephens</u>, 7-00-CV-211-F(1), U.S. District Court for the Eastern District of North Carolina, Southern Division, filed October 18, 2000.
- 27. <u>Monsanto Co. v. White</u>, 4:00CV01761RWS, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed November 6, 2000.
- 28. <u>Monsanto Co. v. Wood</u>, 2:00-3142M1BRE, U.S. District Court for the Western District of Tennessee, Western Division, filed November 30, 2000.
- 29. <u>Monsanto Co. v. Harris</u>, 4:01CV00253RWS, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed February 15, 2001.
- 30. <u>Monsanto Co. v. Hendrix</u>, 4:01CV00523ERW, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed April 6, 2001.
- 31. <u>Monsanto Co. v. Schuler</u>, CIV01-1015, U.S. District Court for the District of South Dakota, Northern Division, filed July 9, 2001.
- 32. <u>Monsanto Co. v. Ling</u>, 1:01CV00122CAS, U.S. District Court for the Eastern District of Missouri, Southeastern Division, filed August 16, 2001.
- 33. <u>Monsanto Co. v. Aungst</u>, 01CV73172DT, U.S. District Court for the Eastern District of Michigan, Southern Division, filed August 20, 2001.
- 34. <u>Monsanto Co. v. Kelly</u>, 4:01CV01484CEJ, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed September 14, 2001.
- 35. <u>Monsanto Co. v. Meisberger</u>, 01CC-004016M CV, Circuit Court of the County of St. Louis, Twenty-First Judicial Circuit, State of Missouri, filed November 20, 2001.
- 36. <u>Monsanto Co. v. DeBuhr</u>, 4:01CV3293, U.S. District Court for the District of Nebraska, filed November 21, 2001.

- 37. <u>Monsanto Co. v. DeBuhr</u>, 4:01CV3294, U.S. District Court for the District of Nebraska, filed November 21, 2001.
- 38. <u>Monsanto Co. v. Rogge</u>, 4:01CV3295, U.S. District Court for the District of Nebraska, filed November 21, 2001.
- 39. <u>Monsanto v. Good</u>, 01CV5678(SMO), U.S. District Court for the District of New Jersey, Camden Vicinage, filed December 6, 2001.
- 40. <u>Monsanto v. Miller</u>, 4:01CV01938RWS, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed December 11, 2001.
- 41. <u>Monsanto v. Miller</u>, 4:01CV01939RWS, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed December 11, 2001.
- 42. <u>Monsanto Co. v. Willis</u>, 4:01CV01963MLM, U.S. District Court for the Eastern District of Missouri, Eastern Division, filed December 14, 2001.
- 43. <u>Monsanto Co. v. Garrell</u>, 7:01-CV-230-BR(1), U.S. District Court for the Eastern District of North Carolina, Southern Division, filed December 18, 2001.
- 44. <u>Monsanto Co. v. Bryant</u>, 1:01CV00187CDP, U.S. District Court for the Eastern District of Missouri, Southeastern Division, filed December 19, 2001.
- 45. <u>Monsanto Co. v. Meekins</u>, 4:02003225, U.S. District Court for the District of South Carolina, Florence Division, filed January 8, 2002.
- 46. <u>Monsanto Co. v. Meekins</u>, 4:02003325, U.S. District Court for the District of South Carolina, Florence Division, filed January 8, 2002.
- 47. <u>Monsanto v. Britt</u>, 7:02-CV-10-F(1), U.S. District Court for the Eastern District of North Carolina, Southern Division, filed January 23, 2002.
- 48. <u>Monsanto v. Hunt</u>, 7:02-CV-11-F-1, U.S. District Court for the Eastern District of North Carolina, Southern Division, filed January 23, 2002.

- 49. <u>Monsanto v. Rogers</u>, 4:02035825, U.S. District Court for the District of South Carolina, Florence Division, filed February 6, 2002.
- 50. <u>Monsanto Company v. Pioneer Hi-Bred International, Inc.</u>, 99CV01917, U.S. District Court for the Eastern District of Missouri, filed December 8, 1999.

Each of the above-listed litigations was decided or settled without a specific allegation of patent invalidity. In some of those litigations, the defendant raised defenses including invalidity of U.S. Patent No. 5,633,435, patent misuse, and/or violation of the Plant Variety Protection Act. The invalidity defenses were in the form of general allegations, but no specific allegation of patent invalidity was made.

In the following two litigations, a specific allegation was made that U.S. Patent No. 5,633,435 is invalid.

51. In Monsanto Co. v. Roush, 1:00CV0208, U.S. District Court for the Northern District of Indiana, Fort Wayne Division, filed May 10, 2000, Defendants submitted a report under Fed. R. Civ. P. 26(a)(2) citing documents A1 and C73-C99, and stating the following opinion:

In my opinion, Claims 1 through 87 of U.S. Patent No. 5,633,435 is, in all probability, invalid under 35 U.S.C. 103 as being unpatentable over Comai (Science 221:370 1983) and (Nature 317:741 1985) and U.S. Patent No. 4,769,061 in view of Fraley et al, della-Cioppa et al, Larson-Kelly et al, Stalker et al, Klee et al, Henner et al, Fillatti et al and Fitzgibbon and in all probability is invalid under 35 U.S.C. 112 as being unpatentable over Henner et al in view of Comai et al (Science 221:370 1983) and (Nature 317:741 1985) and U.S. Patent No. 4,769,061 in view of Fraley et al, della-Cioppa et al, Larson-Kelly et al, Stalker et al, Klee et al, Fillatti et al and Fitzgibbon and others.

Applicants also do not agree with the above-stated opinion. The <u>Rousch</u> case has settled and is no longer pending.

52. In Monsanto v. Scruggs, 3:00CV161-B-A, U.S. District Court, Northern District of Mississippi, Western Division, filed September 7, 2000, Defendants alleged several invalidity defenses. (See Defendant's Second Supplemental Answers to Plaintiff's Third Set of Interrogatories to Mitchell Scruggs, dated May 30, 2004 (C100).) Defendants filed further papers asserting that U.S. Patent No. 5,633,435 is invalid because it allegedly does not comply with the best mode requirement of 35 U.S.C. § 112 and that it allegedly does not enable the invention as required by 35 U.S.C. § 112. (See Defendants' Motion for Summary Judgment on Plaintiff's Patent Infringement Claim, Count One, Third Amended Complaint (C101) and Memorandum in Support of Defendants' Motion for Summary Judgment on Plaintiff's Patent Infringement Claim, Count One, Third Amended Complaint (and exhibits) (C102), dated August 8, 2003; Defendants' Response to Plaintiff's Notice of Dismissal of Count One (and Rebuttal to Monsanto's Response to Defendant's Motion for Summary Judgment on Count One (with exhibits), dated January 12, 2004 (C103); Defendant's Motion for Establishment of Certain Facts, Invalidation of Patent Claims, and Expenses, as a Sanction, and Defendants' Opposition to Monsanto's Notice of Dismissal of Count One, Third Amended Complaint with Prejudice and Motion to Dismiss Defendants' Counterclaim Alleging Invalidity of the '435 Patent for Lack of Subject Matter Jurisdiction Filed December 8, 2003(C104) and Memorandum Brief in Support of Defendants' Motion for Establishment of Certain Facts, Invalidation of Patent Claims, and Expenses, as a Sanction and in Opposition to Monsanto's Motion to Dismiss Counterclaim (and exhibits)(C105), dated December 31, 2003.) Applicants do not agree with these assertions.

Upon Plaintiff's withdrawal of Count One from the <u>Scruggs</u> litigation, the court dismissed as moot Defendants' Motion for Summary Judgment on Plaintiff's Patent Infringement Claim, Count One, Third Amended Complaint, and denied Defendants' Motion for Establishment of Certain Facts and Invalidation of Patent Claims.

No fees are believed to be due in connection with the filing of this Supplemental Information Disclosure Statement. Should any fees be deemed necessary for any reason relating to these materials, the Commissioner is hereby authorized to deduct said fees from Deposit Account No. 01-2508/11899.0175.REUS07.

Date: April 13, 2005

Janelle D. Waack Reg. No. 36,300

ATTORNEY FOR ASSIGNEE MONSANTO TECHNOLOGY LLC

HOWREY SIMON ARNOLD & WHITE, LLP 750 Bering Drive Houston, Texas 77057-2198 Tel. No. (713) 787-1686 Fax No. (713) 787-1440

> CERTIFICATE OF MAILING 37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date be

Signature

Form PTO-1449 (Modified) Serial No. Atty Docket No. List of Patents and 11899.0175.REUS07 Publications to Appricant's Information Disclosure's Statement 10/622,201 Applicant(s): Gerard F. Barry, et al. Filing Date: July 18, 2003 Group: 1638 **U.S. Patent Documents** Exam. Init. Patent Issue Date Inventor Name(s) Class/Subclass Filing Date Number

		Foreign I	Patent Documents				
	Doc. Number	Date	Country	Class/Subclass	Translation		
		Othe	er Information	<u></u>			
C73	Agrobacterium Tu Bio/Technology 5	mefaciens Vec :726-730 (1987		R. Rose, and L. Comai	,		
C74	"Chloroplast Transport Of A Ribulose Biphosphate Carboxylase Small Subunit-5-Enolpyruvyl 3-Phosphoshikimate Synthase Chimeric Protein Requires Part Of The Mature Small Subunit In Addition To The Transit Peptide," L. Comai, N. Larson-Kelly, J. Kiser, C. Mau, A. Pokalsky, C. Shewmaker, K. McBride, A. Jones, and D. Stalker, J. Biol. Chem. 263:15104-15109 (1988).						
C75	"The Organization And Nucleotide Sequence Of the Bacillus Subtilis hisH, tyrA and AroE Genes," D. Henner, L. Band, G. Glaggs, and E. Chen, Gene 49:147-152 (1986).						
C76	"Pseudomonas sp. Strain PG2082: Uptake Of Glyphosate And Cloning Of A Gene Which Confers Increased Resistance To Glyphosate," J. Fitzgibbon, Ph.D. (December 1998).						
C77	"Gene Transfer T	o Cereal: An A	ssessment," I. Potrykus	, Bio/Technology 1:535	-542 (1990).		
C78	"Genetic Aspects Of Aromatic Amino Acid Biosynthesis In Lactococcus Lactis," H. Griffin, and M. Gasson, Mol. Gen. Genet. 246:119-127 (1995).						
C79	"Targeting A Herbicide-Resistant Enzyme From Escherichia Coli To Chloroplasts Of Higher Plants," G. della-Cioppa, S. Bauer, M. Taylor, D. Rochester, B. Klein, D. Shah, R. Fraley, and G. Kishore, Bio/Technology 5:579-584 (1987).						
C81	"Production Of Transgenic Soybean Plants Using Agrobacterium-Mediated DNA Transfer," M. Hinchee, D. Connor-Ward, C. Newell, R. McDonnell, S. Sato, C. Gasser, D. Fischhoff, D. Re, R. Fraley, and R. Horsch, Bio/Technology 6:915-926 (1988).						
C81	"Chloroplast Delivery Of A Bacterial EPSPS Synthase In Transgenic Plants And Tolerance To Glyphosate," N. Larson-Kelly, L. Comai, J. Kiser, C. Mau, A. Pokalsky, K. McBride, A. Jones, C. Shewmaker, and D. Stalker, Biochem. Biotech. 1:37-40 (1998).						
C82			s From Agrobacterium eports 7:281-284 (1988)		er," M. Jordan		
C83	"Agrobacterium-Mediated Gene Transfer To Plants; Engineering Tolerance To Glyphosate," R. Horsch, R. Fraley, S. Rogers, H. Klee, J. Fry, M. Hinchee, and D. Shah, <i>Iowa State Journal of Research</i> 62:487-502 (1988).						
C84	"The Use Of Bact	erial Genes En	coding Herbicide Toler	ance In Constructing T	ransgenic		

	Plants," E. Piruzian, V. Mett, N. Kobets, and F. Urmeeva, Microbiological Sciences 5:242-248 (1988).				
C85	"Cloning Of An Arabidopsis Thaliana Gene Encoding 5-Enolpyruvylshikimate-3-Phosphate Synthase: Sequence Analysis And Manipulation To Obtain Glyphosate-Tolerant Plants," H. Klee, Y. Muskopf, and C. Gasser, Mol. Gen. Gene. 210:437-442 (1987).				
C86	"Genetically-Engineered Herbicide Tolerance - Technical And Commercial Considerations," R. Fraley, G. Kishore, C. Gasser, S. Padgette, R. Horsch, S. Rogers, G. Della-Cioppa, and D. Shah, British Crop Protection Conference – Weeds 2:463-471 (1987).				
C87	"Engineering Herbicide Tolerance In Transgenic Plants," D. Shah, R. Horsch, H. Klee, G. Kishore, J. Winter, N. Tumer, C. Hironaka, P. Sanders, C. Gasser, S. Aykent, N. Siegel, S. Rogers, and R. Fraley, Science 233:478-481 (1986).				
C88	"An Altered aroA Gene Product Confers Resistance to the Herbicide Glyphosate," L. Comai, L. Sen, and D. Stalker, Science 221:370-371 (1983).				
C89	"A Single Amino Acid Substitution In The Enzyme 5-Enolpyruvylshikimate-3-Phosphate Synthase Confers Resistance To The Herbicide Glyphosate," D. Stalker, W. Hiatt, and L. Comai, J. Biol. Chem. 260:4724-4728 (1985).				
C90	"Engineering Herbicide Resistance In Plants," J. Botterman and J. Leemans, Trends In Genetics 4:219-222 (1988).				
C91	"Glyphosate Tolerant Variants Of Petunia EPSP Synthase," D. Eichholtz, C. Gasser, D. Re, S. Padgette, G. Kishore, D. Shah, and R. Fraley, American Society of Plant Physiologists, Sup. To Plant Physiology (1989).				
C92	"EPSP Synthase- From Biochemistry To Genetic Engineering Of Herbicide Tolerance," G. Kishore, S. Padgette, G. Della-Cioppa, D. Biest Re, L. Brundage, D. Shah, C. Gasser, P. Sanders, H. Klee, R. Horsch, N. Hoffmann, and R. Fraley, American Society of Biological Chemists, 78th Annual Meeting, Abstract # 754 (1987).				
C93	"Genetic Engineering Of Plants For Herbicide Resistance Expression Of An RuBP Carboxylase Small Subunit-EPSP Synthase Chimeric Gene, Chloroplast Transport Of The Hybrid Protein, And Tolerance Phenotype In Transgenic Plants," L. Comai, N. Larson-Kelly, J. Kiser, A. Jones, D. Stalker, P. Moran, K. Kiehne, and A. Koning, Vortr. Pflanzenzüchtg 16:441-454 (1989).				
C94	"Biocontrol Of Plant Diseases Volume II" K. Mukerji and K. Garg, Editors, CRC Press Inc. (1988).				
C95	"The Development Of Herbicide Resistant Crops," B. Mazur and S. Falco, Annu. Rev. Plant Physiol. Plant Mol. Biol. 40:441-470 (1989).				
C96	"Producing Herbicide-Resistant Plants By Gene Transfer Technology". D. Stalker, in "Target Sites of Herbicide Action", P. Boger and G. Sandmann Editors, 1989.				
C97	"Genetic Engineering Of Tobacco For Resistance To The Herbicide Glyphosate," L. Comai, D. Stalker, W. Hiatt, G. Thompson, and D. Facciotti, (abstract, 1985).				
C98	"Performance Assessment Under Field Conditions Of A Rapid Immunological Test For Transgenic Soybeans," J. Fagan, B. Schoel, A. Haegert, J. Moore, and J. Beeby, International Journal of Food Science and Technology 36:357-367 (2001).				
C99	"Expression In Plants of a Mutant aro A Gene from Salmonella Typhimurium Confers Tolerance to Glyphosate," L. Comai, D. Facciotti, W.R. Hiatt, G. Thompson, R.E. Rose & D. M. Stalker, <i>Nature</i> 317:741-744 (1985).				
C100	Defendant's Second Supplemental Answers to Plaintiff's Third Set of Interrogatories to Mitchell Scruggs, as filed May 30, 2004, in <i>Monsanto Company v. Scruggs</i> , 3:00CV161-P-D, U.S. District Court, Northern District of Mississippi, Western Division.				
C101	Defendants' Motion for Summary Judgment on Plaintiff's Patent Infringement Claim, Count One, Third Amended Complaint, dated August 8, 2003, as filed in <i>Monsanto Company v. Scruggs</i> , 3:00CV161-B-A, U.S. District Court, Northern District of Mississippi, Western Division.				
C102	Memorandum in Support of Defendants' Motion for Summary Judgment on Plaintiff's Patent Infringement Claim, Count One, Third Amended Complaint (with exhibits), dated August 8, 2003, as filed in <i>Monsanto Company v. Scruggs</i> , 3:00CV161-B-A, U.S. District Court, Northern District of Mississippi, Western Division.				

С		Defendants' Response to Plaintiff's Notice of Dismissal of Count One (and Rebuttal to			
		Monsanto's Response to Defendant's Motion for Summary Judgment on Count One (with			
	C103				
		exhibits), dated January 12, 2004, as filed in Monsanto Company v. Scruggs, 3:00CV161-B-A,			
		U.S. District Court, Northern District of Mississippi, Western Division			
		Defendants' Motion for Establishment of Certain Facts, Invalidation of Patent Claims and			
Cle		Expenses, as a Sanction, and Defendants' Opposition to Monsanto's Notice of Dismissal of			
	C104	Count One, Third Amended Complaint with Prejudice and Motion to Dismiss Defendants'			
	C104	Counterclaim Alleging Invalidity of the '435 Patent for Lack of Subject Matter Jurisdiction Filed			
		December 8, 2003, dated December 31, 2003, as filed in Monsanto Company v. Scruggs,			
		3:00CV161-B-A, U.S. District Court, Northern District of Mississippi, Western Division.			
		Memorandum Brief in Support of Defendants' Motion for Establishment of Certain Facts,			
		Invalidation of Patent Claims and Expenses, as a Sanction and in Opposition to Monsanto's			
	C105	Motion to Dismiss Counterclaim (with exhibits), dated December 31, 2003, as filed in Monsanto			
		Company v. Scruggs, 3:00CV161-B-A, U.S. District Court, Northern District of Mississippi,			
		Western Division.			

DATE CONSIDERED:				_	

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.